

The Perils of Big Pot – The Big Tobacco of Our Time

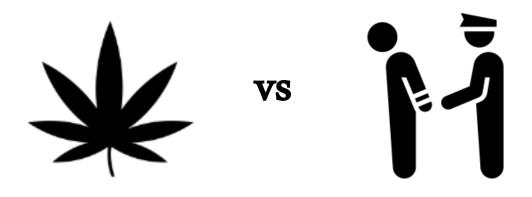
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Director, Drug Policy Institute, University of Florida Co-Founder, Project SAM (Smart Approaches to Marijuana)

www.learnaboutsam.org

www.kevinsabet.com

The false dichotomy: "Legalization OR incarceration?"





What is SAM?



- A 501(c)(3) non-profit, educational organization funded by volunteers & private organizations
- Our mission:
 - Educate citizens on the science of marijuana
 - Promote **health-first**, **smart policies and attitudes** that decrease marijuana use and its consequences



SAM's board members and supporters

- American Society of Addiction Medicine
- American Academy of Pediatrics
- American Academy of Child and Adolescent Psychiatry
- Other leading public health authorities
- Over 30 state affiliates, including:
 - Treatment centers
 - Recovery groups
 - Prevention organizations
 - Law enforcement
 - Leading medical authorities
 - Volunteer citizens



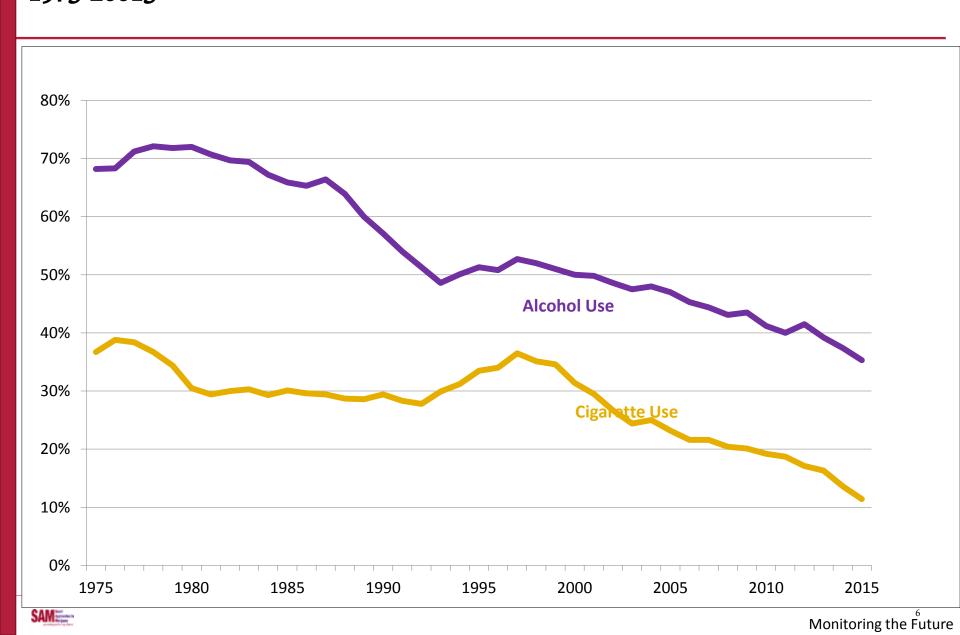


Legalization =

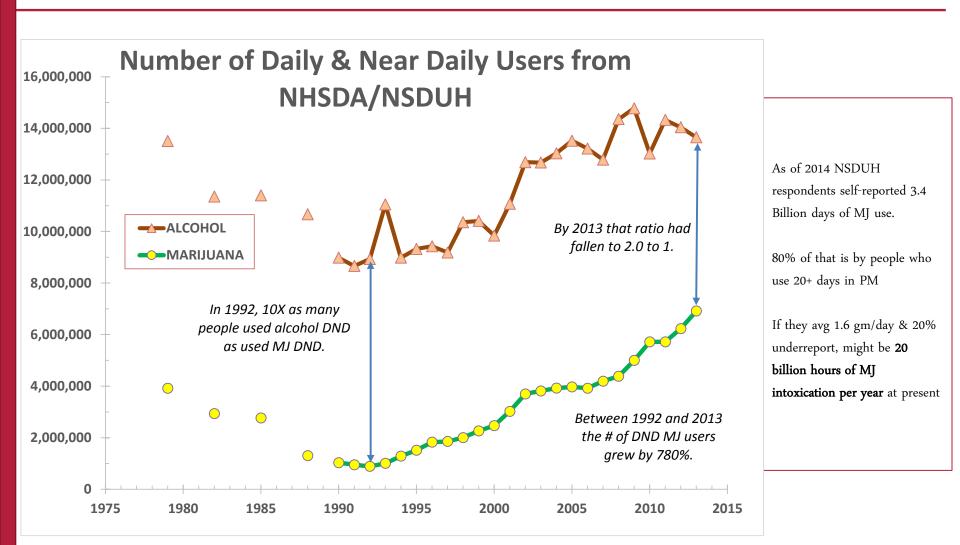
Big Marijuana

Legalization measures will inevitably lead to mass commercialization

Past Month Use of Any Alcohol and Cigarettes by High School Seniors, 1975-20015



Caulkins: Most important outcome of marijuana legalization is changes in daily use and dependence



Defining Legalization

These things are not legalization

- Eliminating mandatory minimum sentences
- Decriminalization (as in many US states since 1970s)
- Legalizing medical use within the CSA (as with cocaine)
- Legalizing personal possession and use (as in AK)

These things are legalization, but they are not alike

- Legalizing own-growing & gifting (as in AK & DC)
- Legalizing co-ops or cannabis clubs (as in Spain)
- Government monopoly (as with lotteries)
- Legalizing non-profit or public-benefit corps' production
- What we are actually doing in the U.S.

What do we get with current legalization

Commercialization

- CO now #1 youth use rate in the country
- Rampant advertising/commercialization
- A thriving underground market white, grey, and black.

Promotion of Special Interests

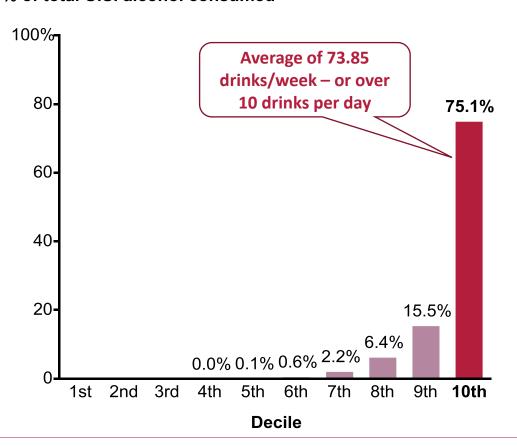
- THC caps have failed (State of CO)
- Limit on # and location of stores have failed (Denver)
- Money diverted to general fund (eg WA)



Alcohol companies depend on heavy drinkers to make money

The top 10% of the population make up 75% of the alcohol industry's U.S. sales

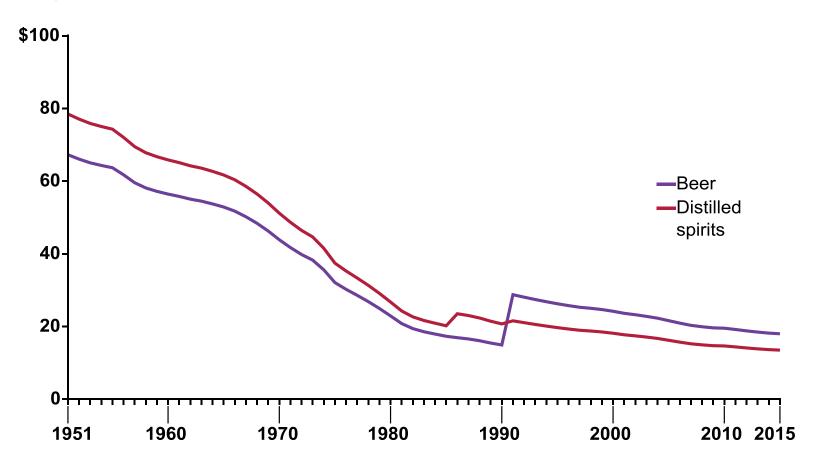
% of total U.S. alcohol consumed



- Belies the slogan "Enjoy Responsibly"
- Would the marijuana industry be any different?

Excise taxes on alcohol have plummeted, falling by up to 80% since the Korean War

Federal excise tax per relevant unit volume (real value in 2015 dollars)



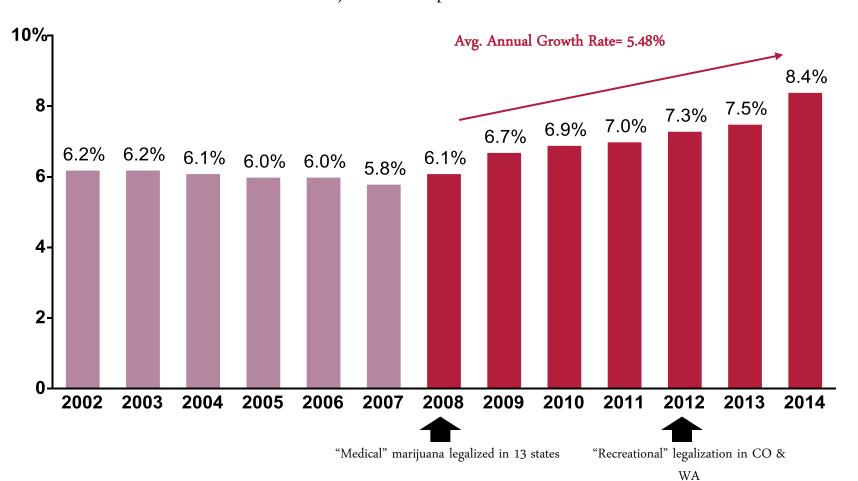


Newsweek



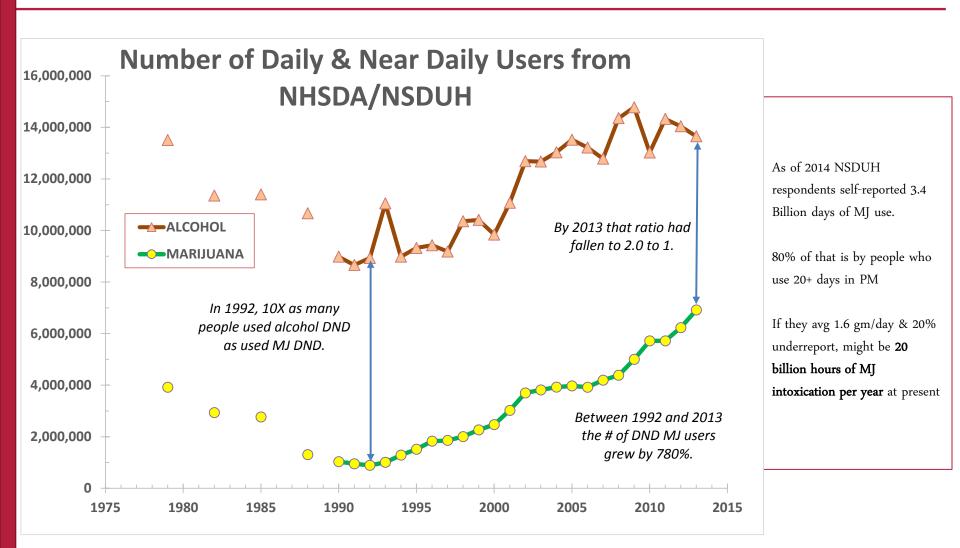
Marijuana use has been on the rise in the last decade, since legalization laws became common

Percentage of population ages 12 and up who used marijuana in the past month



Source: NSDUH

Most important outcome of marijuana legalization is changes in daily use and dependence



Source: Jon Caulkins based on NSDUH

Why should we care about marijuana?



Seven myths about marijuana that legalizers want you to believe

- 1 Marijuana Is Harmless and Non-addictive
- 2 Smoked Marijuana is Medicine
- 3 Countless People Are Behind Bars for Smoking Marijuana
- The Legality of Alcohol and Tobacco Strengthen the Case for Marijuana Legalization
 - Legal Marijuana Will Solve the Government's Budgetary Problems
- Portugal and Holland Provide Successful Examples of Legalization
 - Prevention, Intervention, and Treatment are Doomed to Fail So Why Try?



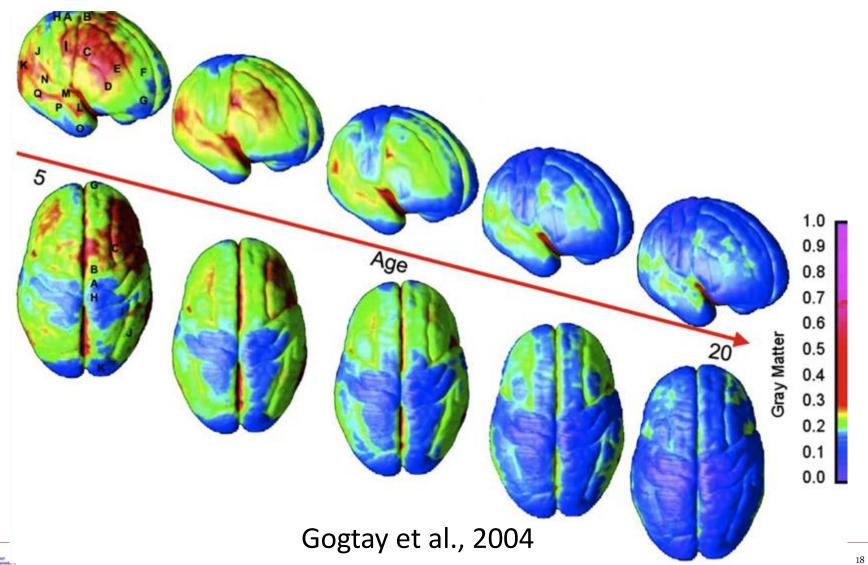
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Myth 1: Marijuana is Harmless and Non-addictive

- 1 Marijuana Is Harmless and Non-addictive
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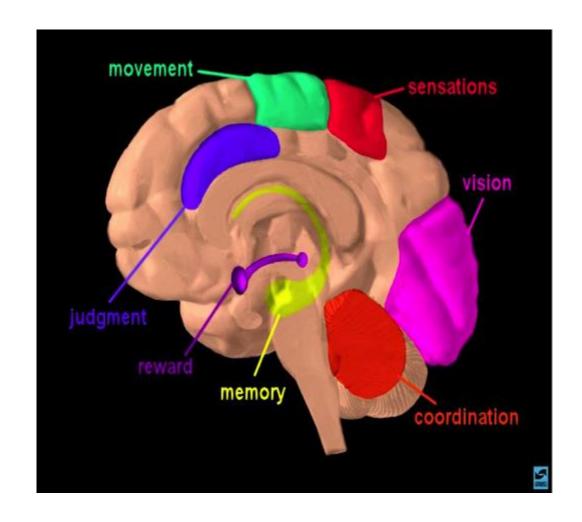


Brain development, Ages 0-20



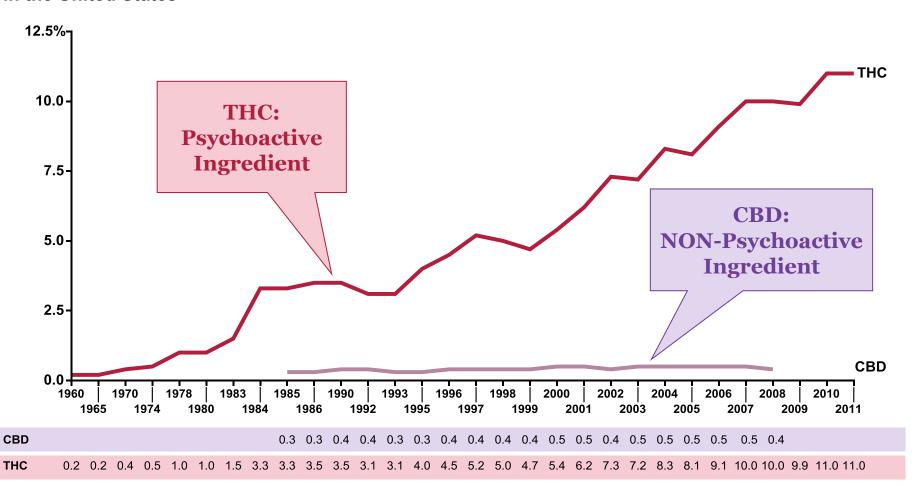
Cannabinoid Receptors Are Located Throughout the Brain and Regulate a Host of Brain Activity

- Brain Development
- Memory & Cognition
- Motivational Systems & Reward
- Appetite
- Immunological Function
- Reproduction
- Movement Coordination
- Pain Regulation & Analgesia



Marijuana has become significantly more potent since the 1960s

Average THC and CBD levels in the United States



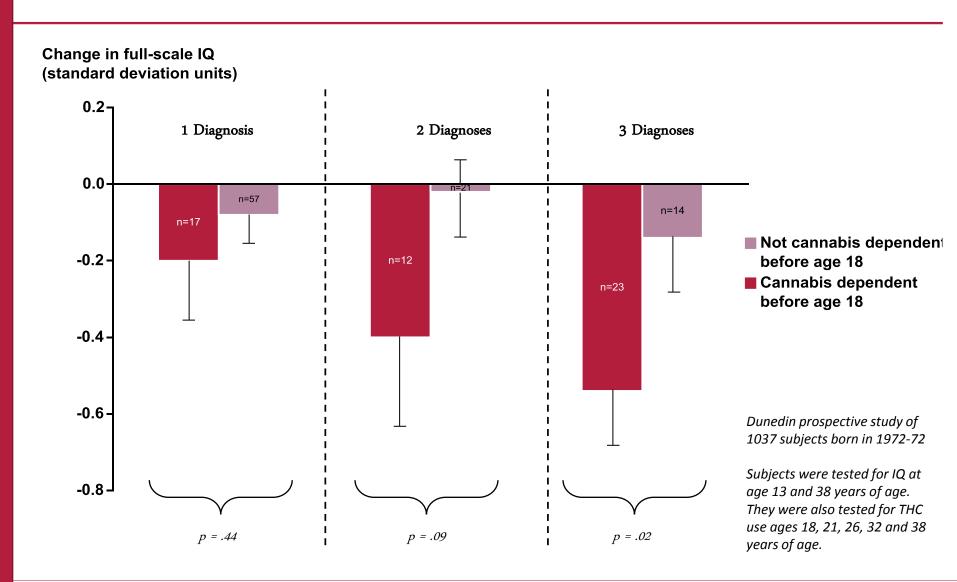


Source: Mehmedic et al., 2010

Marijuana is not "just a plant" anymore – derivatives contain up to 98% THC

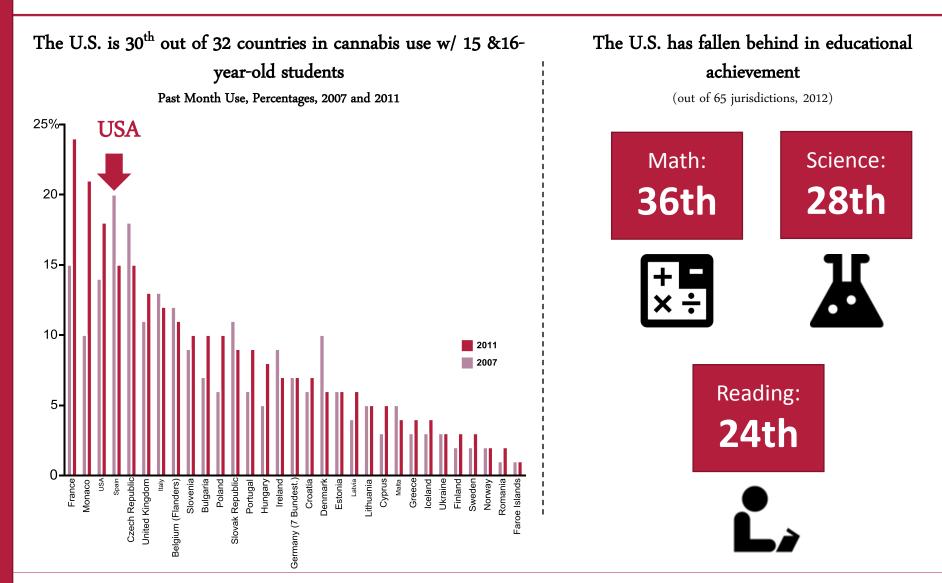


Marijuana use is also associated with lower IQ among adolescents





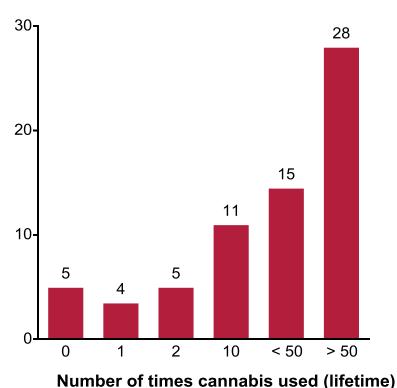
Can the United States afford the risk of further increases in cannabis use?



Marijuana use is associated with psychosis

MORE MARIJUANA USE CORRELATES WITH HIGHER RATES OF SCHIZOPHRENIA

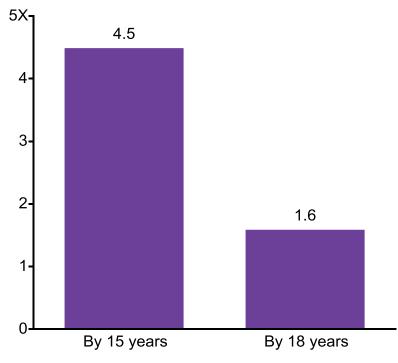
Cases of schizophrenia per 1,000 people



Study of Swedish Conscripts (n=45570)

EARLIER AGE OF USE CORRELATES WITH INCREASED SCHIZOPHRENIA RISK

Risk multiple for schizophrenialike psychosis at age 26



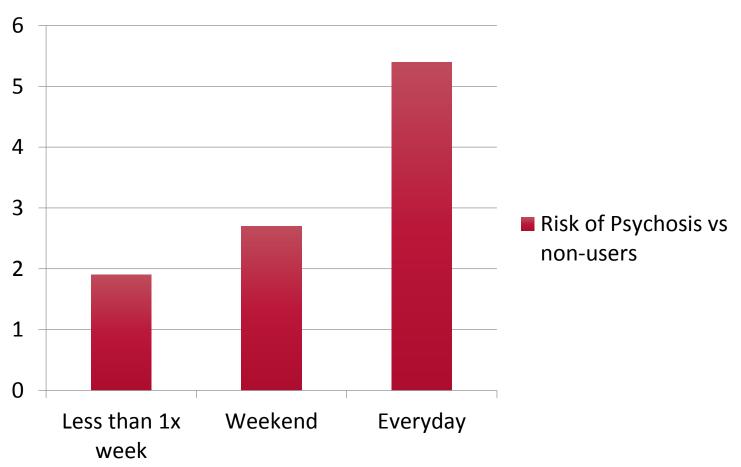
Year of first use

Longitudinal prospective Dunedin study (n=1037)



Higher Potency = Greater Risk of Mental Illness

Risk of Psychosis vs non-users



Di Forti, M., Marconi, A., Carra, E., Fraietta, S., Trotta, A., Bonomo, M., & Murray, R. M. (2015). Proportion of patients in south London with first-episode psychosis attributable to use of high potency cannabis: a case-control study. *The Lancet Psychiatry*, 2(3), 233-238.

Marijuana and Heroin (rodent study)

adolescents exposed to THC

Adults seek heroin more avidly

exposed to THC in

- Adult offspring seek heroin more avidly
- Behavioral issues and brain impairment

Future parents exposed to THC long before pregnancy

- Adult offspring seek heroin more compulsively
- More heroin withdrawal, brain and behavioral changes



Szutorisz H, Dinieri JA, Sweet E, Egervari G, Michaelides M,Carter JM, Ren Y, Miller ML, Blitzer RD, Hurd YL. Parental THC Exposure Leads to Compulsive Heroin-Seeking and Altered Striatal Synaptic Plasticity in the Subsequent Generation. Neuropsychopharmacology. 2014 May; 39(6):1315-23.



Adolescent Marijuana Use - Opioid Addiction...

Twin A started marijuana before age 17
Twin B after age 17: Twin A is 4x more at risk for opioid addiction





Michael T. Lynskey; Andrew C. Heath; Kathleen K. Bucholz JAMA, January 22/29, 2003—Vol 289, 427-433

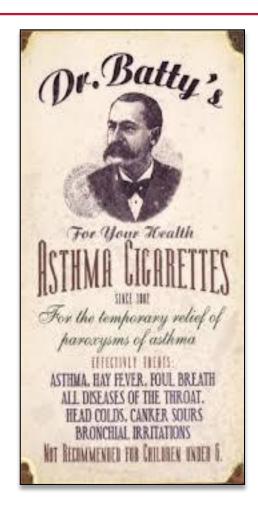
Chart Source: Bertha K. Madras

Privateer Holdings

• The first private equity company dedicated to the marijuana industry



The early days of big tobacco





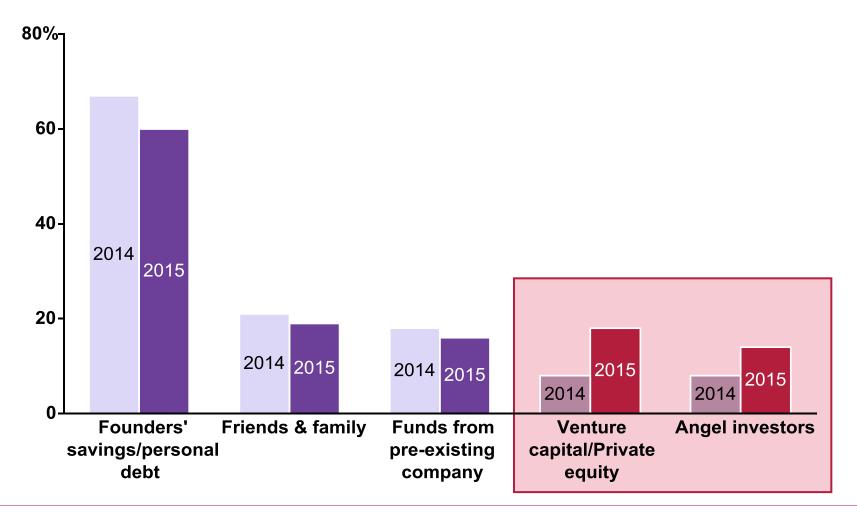






Not a backyard business anymore: institutional capital is increasingly important

%age of MJ startups using specified financing source





Source: Marijuana Business Factbook 2015

30

Private equity is investing heavily in marijuana, and working hard to build international brands



NY-based private equity firm focused on cannabis



\$26 million round of funding closed July 2015



Partnership with Willie Nelson to develop a marijuana brand





Seattle-based private equity firm investing exclusively in pot



Secured the first institutional investment in cannabis



Launched the world's first global cannabis brand, "Marley Natural"



31



Icons: Till Teenck (The Noun Project)

Marketing to children: can you tell the difference between the tobacco and pot products here?











Myth 3: Countless People Are Behind Bars for Smoking Marijuana

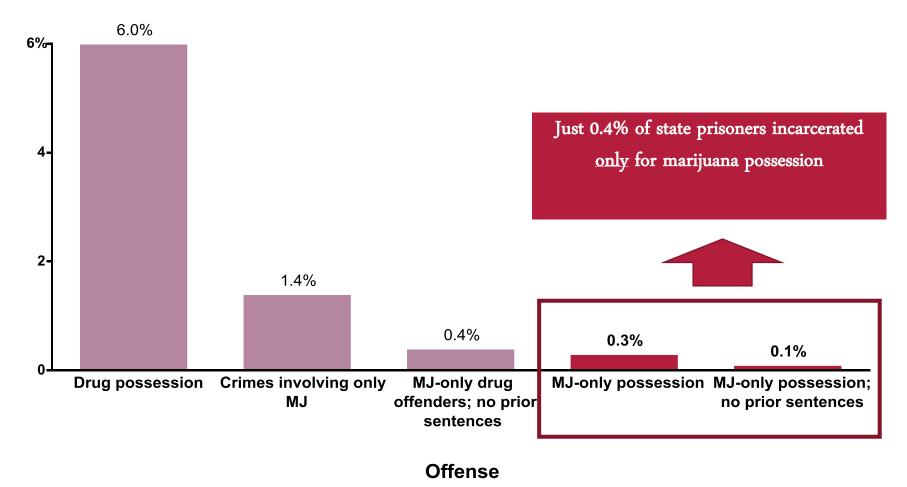
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Very few people are incarcerated only for marijuana possession

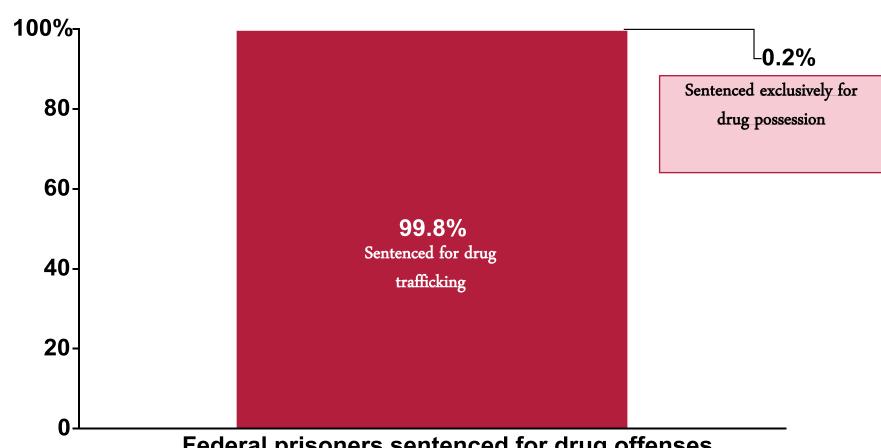
% of state prison population (2004)





Only 0.02% of all federal prisoners in jail for drug offenses are there exclusively for drug possession

Only a tiny %age of prisoners serve time just for drug possession



Legalization is unlikely to diminish the power of drug cartels and the black market (1/2)

CARTELS ARE, IN REALITY, DIVERSIFIED BUSINESSES

- "Drug cartels" are diversified enterprises that include mining and pirated goods
- Marijuana accounts for only 15-25% of revenues of drug trafficking groups
- More money is found in other businesses,
 including legal ones, than in selling marijuana
 - Estimates indicate up to 50% of Zeta
 activities related to cigarette smuggling
 - In 2014, iron mining was the #1 source of revenue for the Knights Templar cartel

A HUGE BLACK MARKET EXISTS FOR TOBACCO

- Cigarettes are the world's most widely smuggled legal product
- A **\$657 billion/year business** in 2009
- Provides funding for organized criminal syndicates and terrorist groups worldwide
 - In Canada alone, ~105 organized crime groups are engaged in cigarette smuggling
 - Generates revenue for groups like the Taliban and Hezbollah

Legalization is unlikely to diminish the power of drug cartels and the black market (2/2)



• In a legal market, where drugs are taxed and regulated (for instance to keep THC potency below a certain level or to prevent sale to minors), the black market has every incentive to remain



Legalizing marijuana would likely not deter traffickers from continuing to operate



In countries with a weak rule of law, legalization will likely only result in capture of large portions of the legal market by traffickers, similar to tobacco



Myth 4: The Legality of Alcohol and Tobacco Strengthen the Case for Marijuana Legalization

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Alcohol and tobacco are not models for a marijuana industry

- Use levels for alcohol and tobacco are much higher than that of marijuana
- Both industries promote addiction and target kids

Source: Schiller JS, Lucas JW, Peregoy JA. Summary health statistics for U.S. adults: National Health Interview Survey, 2011. National Center for Health Statistics. Vital Health Stat 10(256). 2012.

Centers for Disease Control and Prevention. Vital Signs: Current Cigarette Smoking Among Adults Aged \geq 18 Years—United States, 2005–2010. Morbidity and Mortality Weekly Report 2011;60(33):1207–12

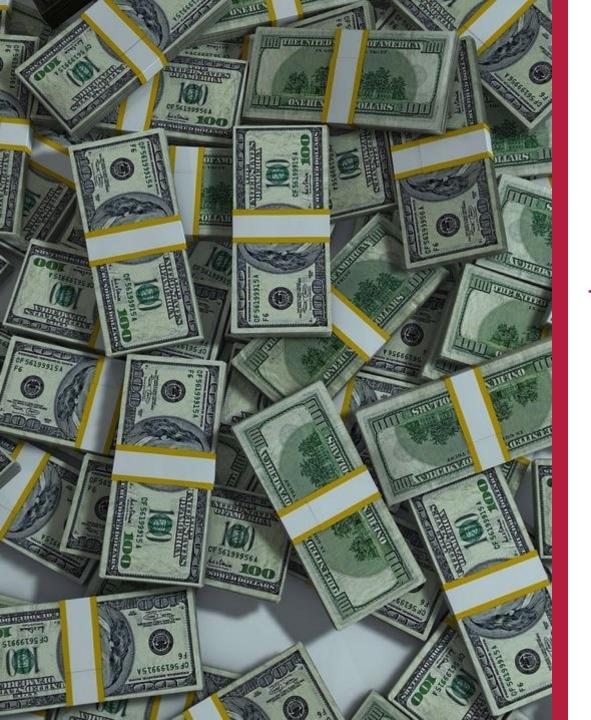


Myth 5: Legal Marijuana Will Solve the Government's Budgetary Problems

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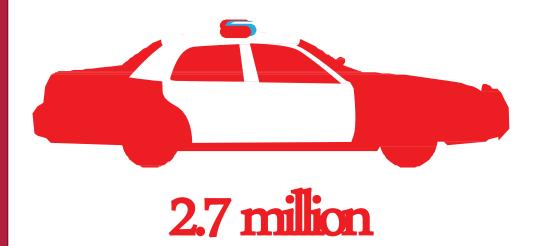
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Will legalization solve budgetary problems?

- Few people are currently in jail for smoking marijuana
- What are the costs from regulation and arrests?

"If only we treated it like alcohol ... "



Arrests for alcohol-related crimes in 2008, including violations of liquor laws and DUI — but does NOT include arrests for alcohol-related violence



Marijuana-related arrests in 2008

VS.

Revenue streams already disappoint





THE DENVER POST





OPINION > OPINION COLUMNISTS

Why pot taxes can't solve Colorado's budget proble









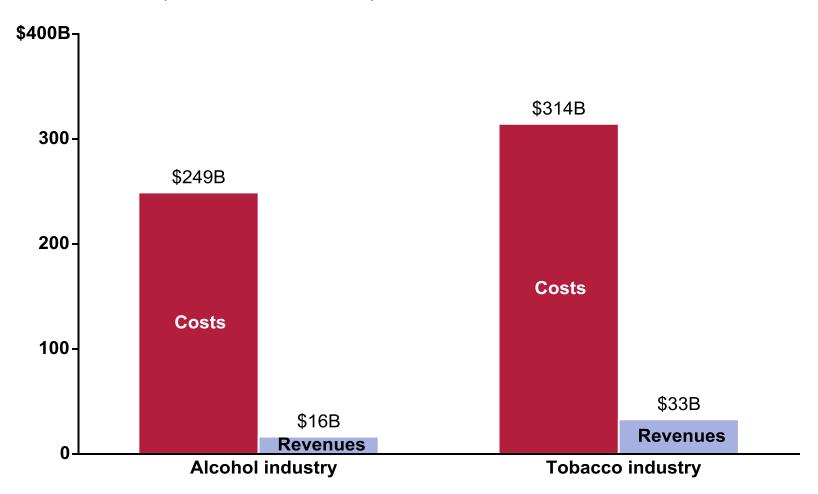






Alcohol and tobacco are money-drainers, not money-makers

Billions of U.S. dollars (indexed to 2012 values)





Myth 6: Portugal and Holland Provide Successful Examples of Legalization

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Myth 7: Prevention, Intervention, and Treatment are Doomed to Fail — So Why Try?

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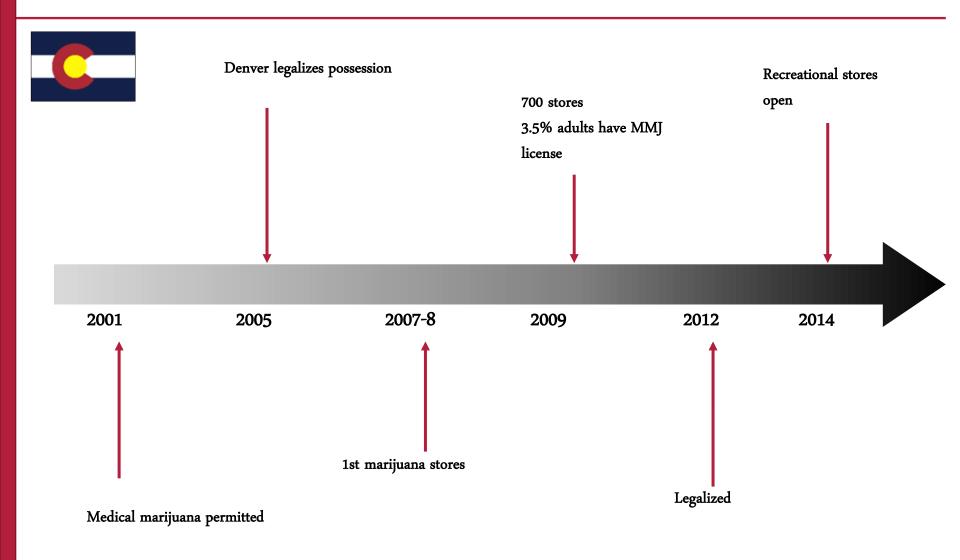






Colorado and Washington

Colorado didn't legalize pot overnight



Marijuana edible displays

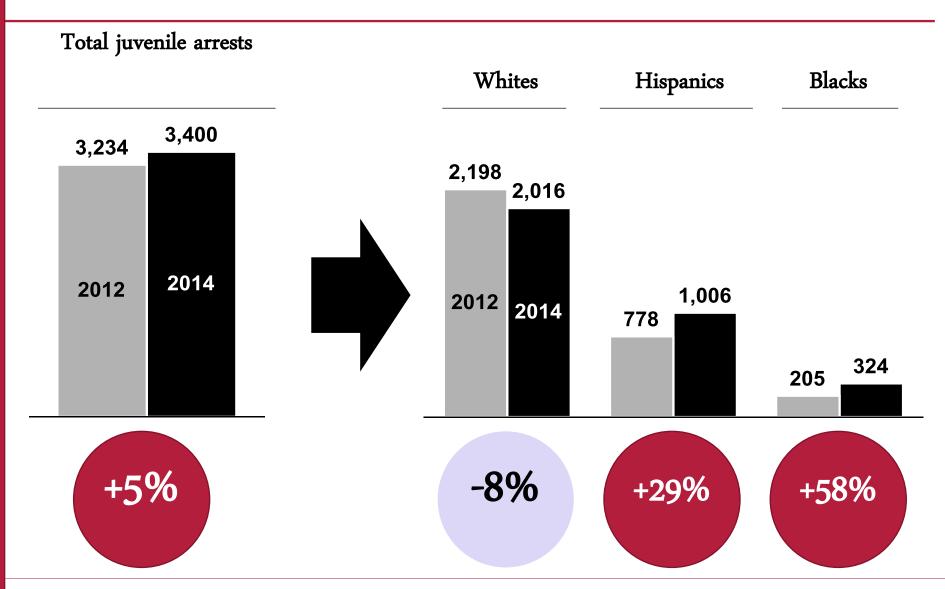




Pot edibles, which are more dangerous than joints, now account for ~50% of the Colorado market

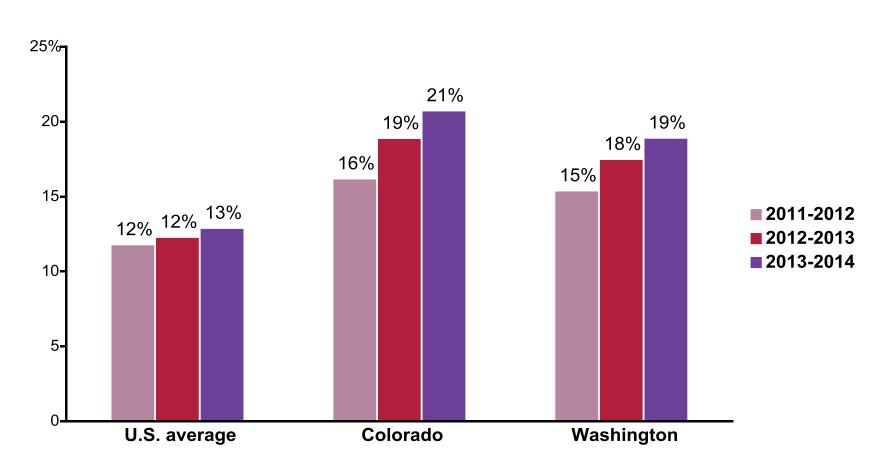


More black and Hispanic youth are being arrested for pot in Colorado after legalization than before



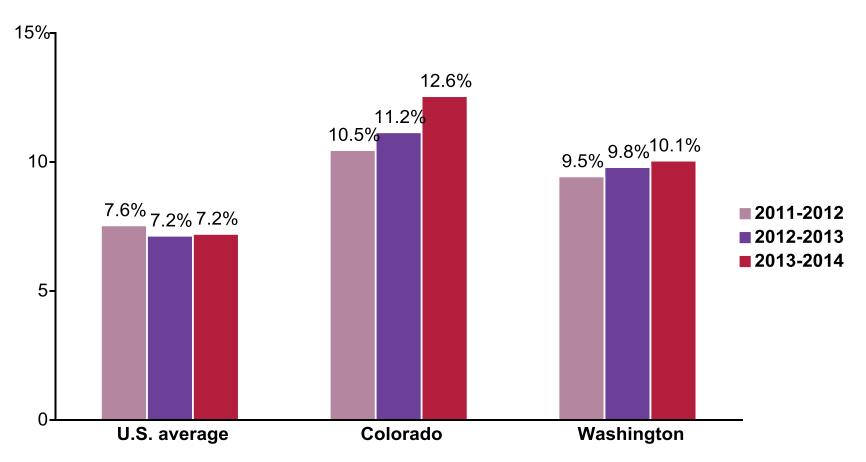
Use in CO and WA are both (A) higher than and (B) rising faster than the national average

Percentage of population ages 12 and up who used marijuana in the past year



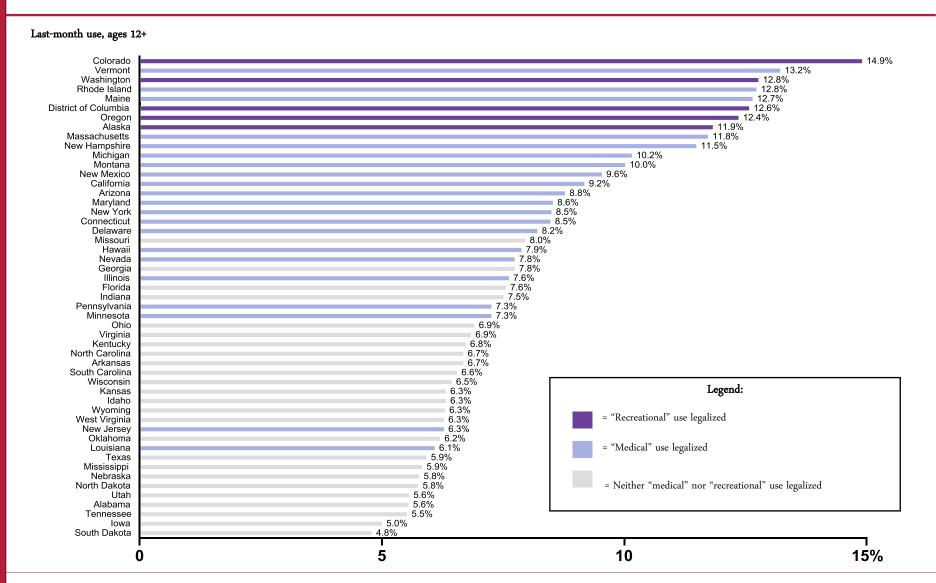
The same trend is seen with last month use among minors (ages 12 to 17)

% of population ages 12-17 using marijuana in past month





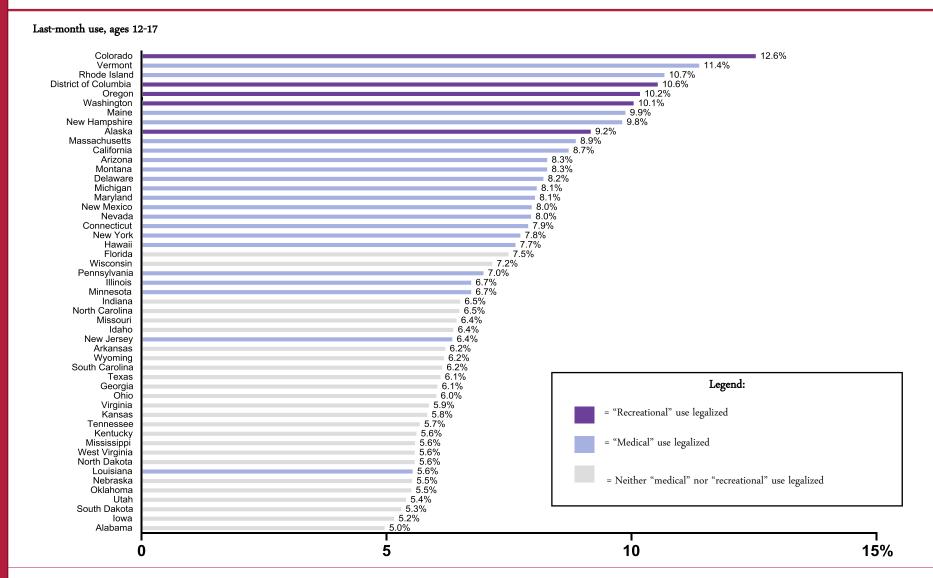
Nationwide, use rates in states that have legalized marijuana outstrip those that have not





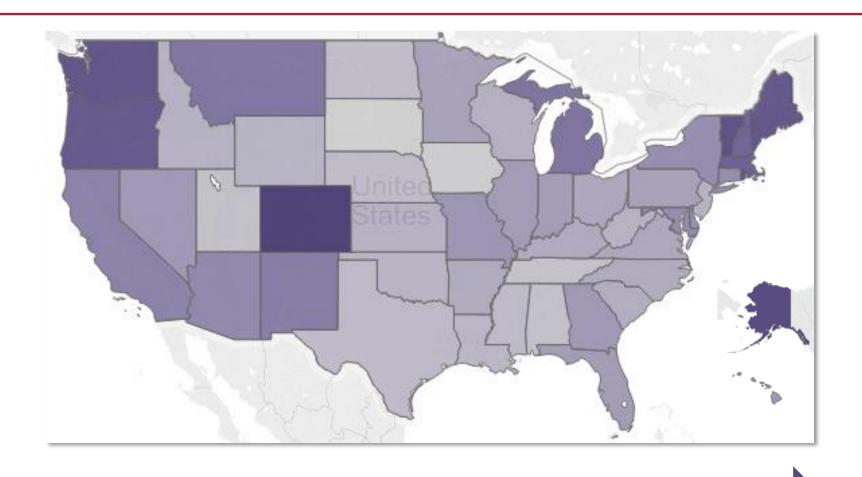
Source: NSDUH (2013-2014)

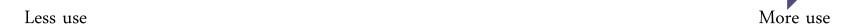
Youth use rates in states that have legalized marijuana outstrip those that have not





Seen from another perspective....





The tobacco industry has been interested in the marijuana market since the late 1960s

From all I can gather from the literature, from the press, and just living among young people, I can predict that marihuana smoking will have grown to immense proportions within a decade and will probably be legalized. The company that will bring out the first marihuana smoking devices, be it a cigarette or some other form, will capture the market and be in a better position than its competitors to satisfy the legal public demand for such products. I want to suggest, therefore, that you institute immediately a research program on all phases of marihuana.³⁸

- Philip Morris internal documents, 1968

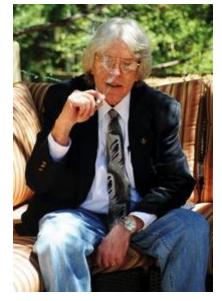
Smoking such [a marijuana] cigarette is a natural expansion of current smoking habits which, if a more tolerant attitude were ever taken to cannabis, would be a change in habit comparable to moving over to cigars. . . .

The proposed research can be started off very simply, it is just to do for "cannabis-loaded" cigarettes what has already been done for normal cigarettes. . . . The starting point must be to learn how to produce in quantity cigarettes loaded uniformly with a known amount of either ground cannabis or dried and cut cannabis rag. ⁵⁵ [emphasis added]

- British American Tobacco internal documents, 1968

The marijuana industry has vowed to make employee rights to pot use a priority

- In 2014, the Colorado Supreme Court established that **employers can fire employees for off-the-job marijuana use,** even within the context of a state medical marijuana program (*Coats v. Dish Network*, LLC, No. 13SC394, 2014 Colo. LEXIS 40 (Colo. Jan. 27, 2014)
- In response, the marijuana industry mobilized to fight for a right for employees to use pot



"[We should not] permit an employee to be fired simply because they elect to use marijuana legally under state law, without a showing of actual on-job impairment.

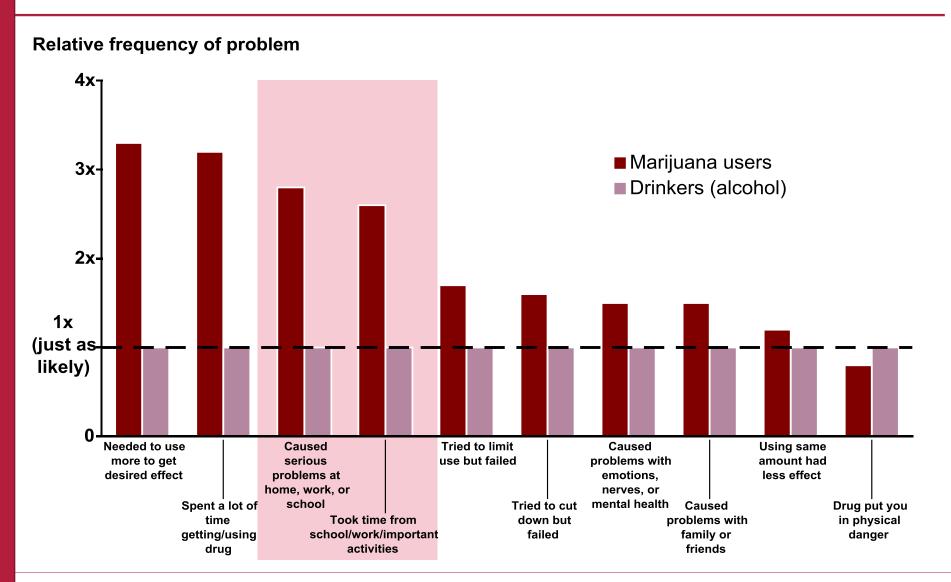
...

[T]hat is simply unfair, and it cannot be allowed to stand."

Keith Stroup, founder of NORML 15 June 2015



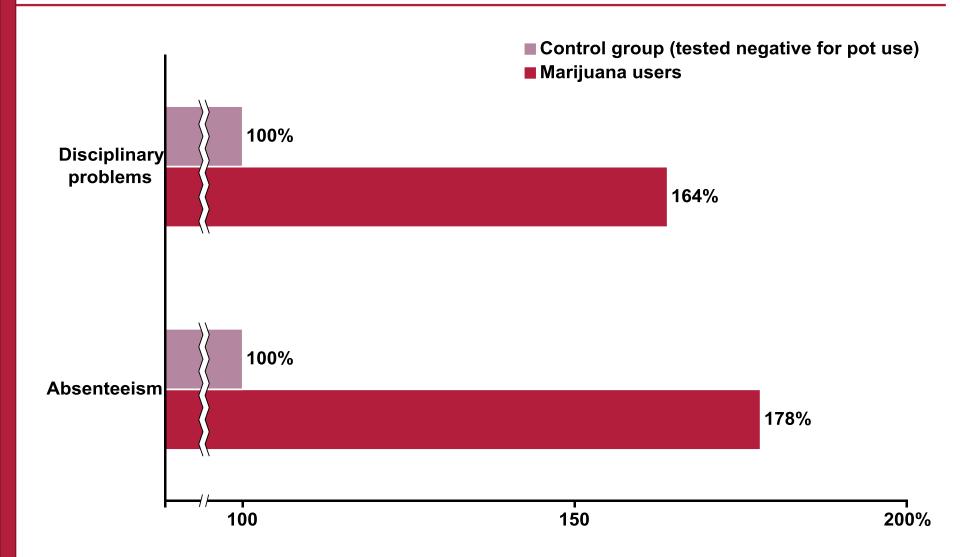
"Safer than alcohol?" Not exactly...





Source: Jonathan Caulkins (using NSDUH data)

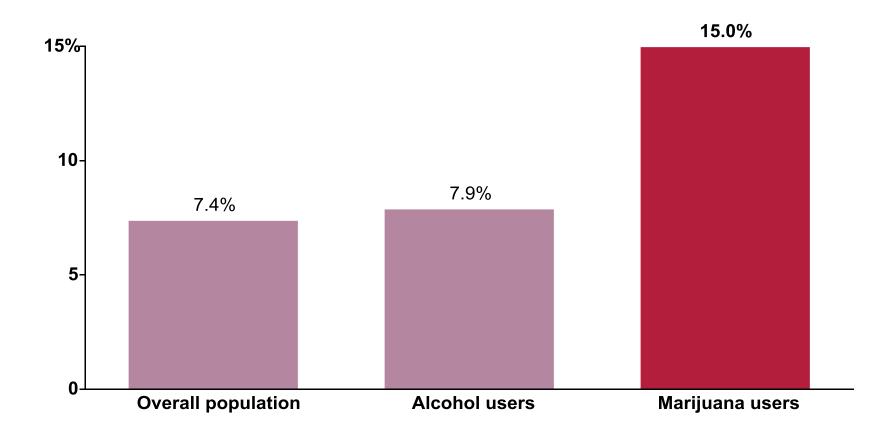
Pot users miss work more frequently and have more disciplinary problems than their colleagues



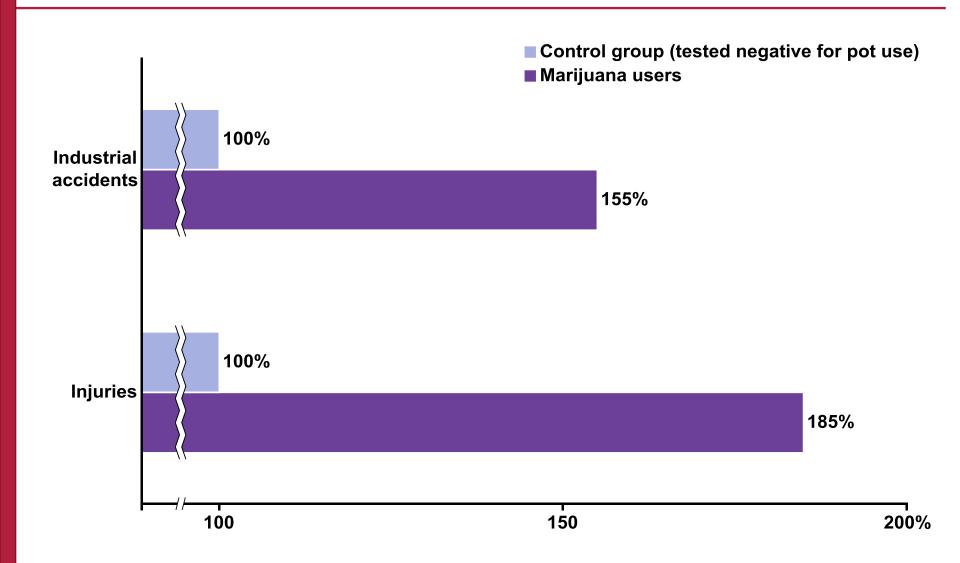


And pot users miss work more often because they "just [don't] want to be there"

Percentage of people who missed work during the past 30 days "because you just didn't want to be there?"

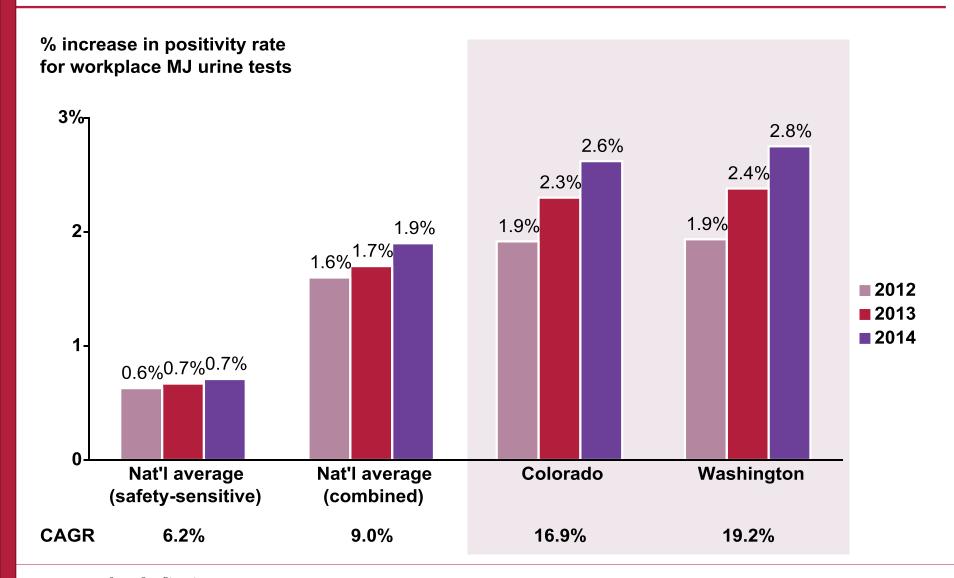


Pot users create significantly more safety problems at the workplace than non-users





Workplace marijuana use is rising across the board, and especially in CO and WA



Drug use is forcing CO employers to hire out-of-state employees instead of CO citizens



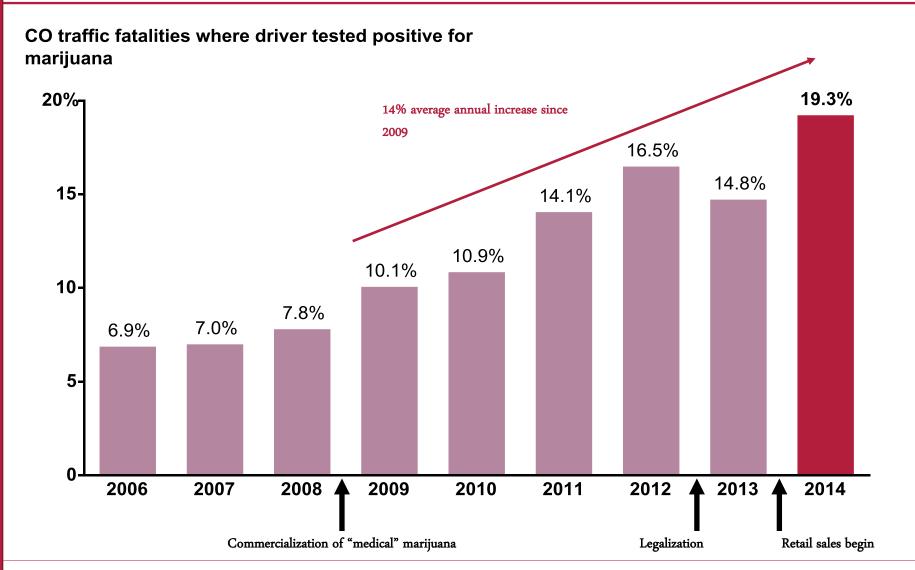
• "Jim Johnson [construction company GE Johnson's CEO]...said his company has encountered so many job candidates who have failed pre-employment drug tests because of their THC use that it is actively recruiting construction workers from other states."

Colorado job applicants show alarming rates of marijuana use, and attempt to cheat drug tests

• "Leona Wellener, owner of Front Range Staffing in Colorado Springs, said marijuana use has compromised the state's workforce. In February, Wellener said, more than half the applicants who came to her company looking for work failed the required drug tests because of THC use."



In almost one of every five traffic fatalities in CO, the driver has been using marijuana





67



In Washington state, the percent of drivers in fatal crashes who recently used marijuana

more than

between 2013 and 2014

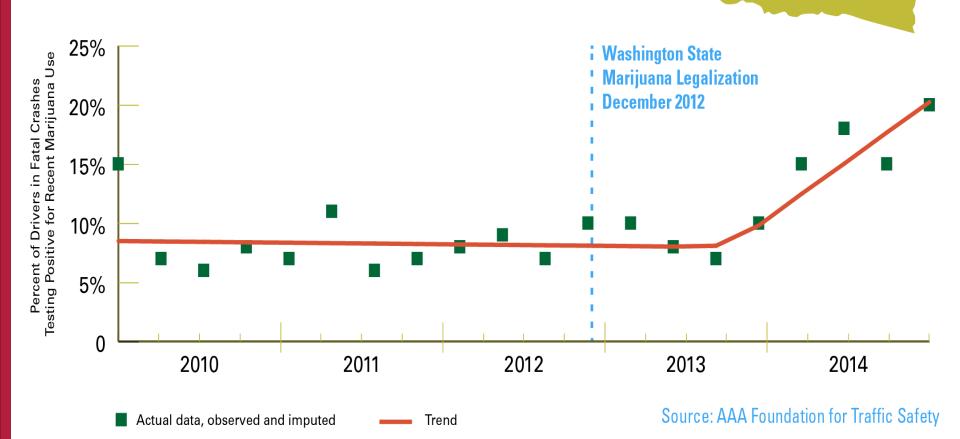
In 2014,

drivers involved in fatal crashes in the state had recently used marijuana



Fatal Road Crashes Involving Marijuana Double After State Legalizes Drug

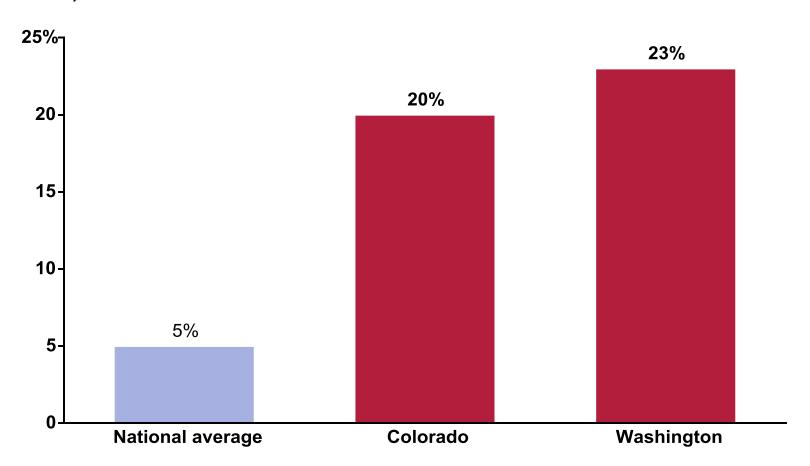
FATAL CRASHES INVOLVING DRIVERS WHO RECENTLY USED MARIJUANA DOUBLED IN WASHINGTON AFTER THE STATE LEGALIZED THE DRUG IN 2012.





WA and CO also show increases in of on-the-job marijuana use well above the U.S. average

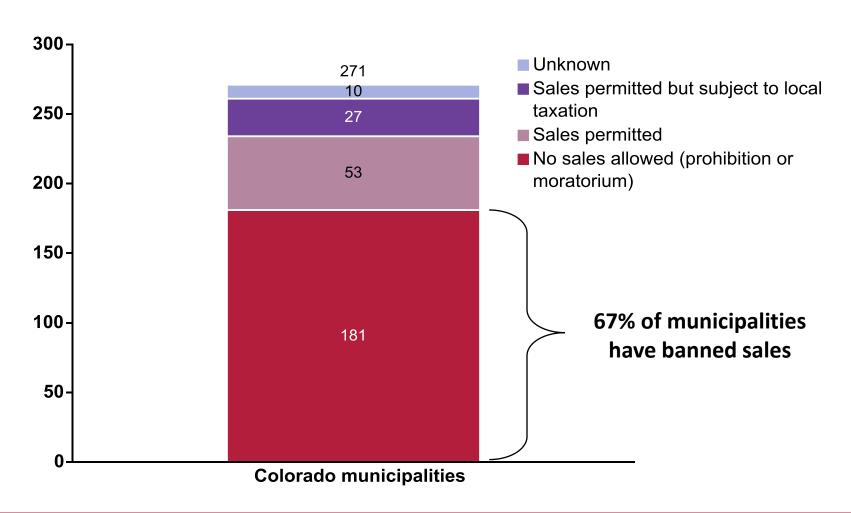
Increase in positive on-the-job marijuana test results (2012 to 2013)





Well over half of Colorado municipalities have banned marijuana sales since legalization

Legal status of retail marijuana sales in CO municipalities





The Landscape

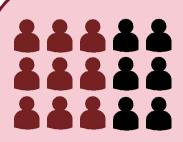
2016 Ballot States: California, Nevada, Arizona,

Massachusetts, Maine

2016 Legislative States: Vermont, Rhode Island



The MA initiative gives strong advantages to industry, incl. *de facto* control of regulatory entity



9 of 15 members of the MA Cannabis Advisory Board will be industry-controlled

Industry representatives:

- An "expert in marijuana cultivation"
- An "expert in marijuana retailing"
- An "expert in marijuana product manufacturing"
- An "expert in marijuana testing"
- A "board member or officer of a medical marijuana treatment center"
- A "registered medical marijuana patient"
- An "individual who represents marijuana retail customers"
- Two "attorneys with experience providing legal services to marijuana businesses, marijuana consumers or medical marijuana patients" in MA

Potential non-industry representatives:

- Two "experts in public health"
- Two "experts in law enforcement"
- Two "experts in social welfare or social justice"

Additional advantages to industry:

- Limits on local control:
 - Opt-out not opt-in
 - Cannot ban delivery/transportation of pot
- State is permitted to **fix prices via capping supply**
- Existing marijuana businesses get a "first-to-market" advantage via a priority in licensing in the first year after legalization
- No regulations (state or local) can make operation of a marijuana business "unreasonably impracticable"



The MA initiative allows marketing aimed at children and other harmful advertising

Billboards



Event sponsorships



Coupons



Allows for sale of pot edibles and concentrates, with weak rules and regulations

Edibles



- No effective health or safety restrictions related to the higher risk these products pose
- Weak advertising restrictions allow pot industry to market these to children

Concentrates



- Retail sale permitted
- Potencies greater than 90% allowed
- Weak advertising restrictions allow pot industry to market these to children



Conclusions

- The only way to make money in the marijuana business is to cultivate and retain heavy users—via targeting minors
- "Good intentions" don't matter; the market dynamics inevitably lead the industry to this approach
- Left unchecked, the pot industry will become another Big Tobacco
- It will also attempt to write the rules and regulations, capture state oversight bodies, and deny harms
- We can reform marijuana laws without legalization and commercialization! There are more than two options.





Thank you!

Kevin@learnaboutsam.org www.learnaboutsam.org